





**1977
CENSUS OF
CONSTRUCTION
INDUSTRIES**CC77-1-8(P)
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Industry Series

Preliminary Report

Water, Sewer, Pipe Line, Communication and Power Line Construction Contractors

SIC 1623

During 1977, the establishments with payroll in this industry had business receipts of \$9.2 billion. Of this amount, \$9.1 billion were receipts for construction work, an increase of 45 percent compared with 1972. Their payments for construction work subcontracted to others amounted to \$976 million leaving net construction receipts of about \$8.1 billion. Total average employment in the industry showed a decrease of 8 percent from 1972 to 192.2 thousand employees. Payroll for 1977 amounted to \$2.8 billion. Value added at \$5.2 billion in 1977 was 36 percent more than in 1972.

The Water, Sewer, Pipe Line, Communication and Power Line Construction Contractors industry includes general contractors primarily engaged in the construction of pipe lines, communication and power lines, and sewer and water mains. It also includes construction of pumping stations, television and radio towers, and telephone line construction. For a more detailed description, see the 1972 SIC Manual.¹

For this census, a "construction establishment" was defined as a relatively permanent office or other place of business at which or from which the usual business activities related to construction were conducted. A separate census report was required from each establishment but not from each construction site. Instead, the data for work at each site were included in the report from the appropriate office or branch office. Foreign construction activities were not included in this census.

The 1977 Census of Construction Industries is the sixth census of construction establishments in the United States. As in previous years, it was conducted jointly with the censuses of mineral industries, manufactures, retail trade, wholesale trade, and service industries under authority of title 13 of the United States Code. Although the first construction census was conducted covering 1929, only the data from the censuses of 1967 and 1972 are comparable with the 1977 data.

The 1977 estimates for establishments with payroll in all of

the construction industries are based on reports from a probability sample of approximately 181,000 establishments selected from about 536,000 construction establishments with payroll. The sample included all construction establishments with a payroll equivalent of 15 or more full-time employees and a sample of those with fewer employees. There were two exceptions: In SIC 1521, sampling was employed in establishments with less than 20 employees because of the large number of establishments in that industry; in SIC 1795, all known establishments were included because of the very small number of establishments in that industry. The data obtained from the sample were inflated to represent all construction establishments with payroll. Complete descriptions of the sampling and estimating procedures will be included in the final reports.

Since the data in this report are based on a sample, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same schedules and procedures. The standard error shown in the tables is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population was surveyed. As calculated for this report, the standard error partially incorporates the effect of random errors of response, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference is less than twice the standard error.

This report does not include figures for separate adminis-

¹ Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 4101-0066. Price \$6.75. 1977 Supplement. Stock No. 003-005-00176-0. Price 90 cents.



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35 cents per copy.

Table 1. Detailed Statistics for Establishments With Payroll: 1977, 1972, and 1967

(Thousands of dollars. Detailed figures may not add to totals because of rounding. For meaning of abbreviations and symbols, see text)

Item	Water, sewer, pipe line, communication and power line construction contractors (1623)			Standard error of estimate (percent)		
	1977	1972	1967	1977	1972	1967
Number of establishments.....	10,189	9,355	6,942	2	3	3
Proprietors and working partners.....	4,020	4,360	3,633	5	5	5
All employees:						
March.....	163,857	180,391	164,607	1	1	1
May.....	192,386	205,934	180,281	1	1	1
August.....	211,116	233,221	207,923	1	1	1
November.....	201,487	213,546	194,026	1	1	1
Average.....	192,211	209,318	187,486	1	1	1
Construction workers:						
March.....	140,476	156,153	139,400	1	1	1
May.....	167,815	180,977	159,537	1	1	1
August.....	186,773	207,312	186,354	1	1	1
November.....	177,317	187,857	172,803	1	1	1
Average.....	168,095	184,199	165,354	1	1	1
Other employees:						
March.....	23,381	24,238	24,601	1	1	1
May.....	24,571	24,957	20,640	1	1	1
August.....	24,343	25,909	21,350	1	2	1
November.....	24,173	25,689	20,959	1	1	1
Average.....	24,117	25,599	22,136	1	1	1
Payroll, all employees.....	2,770,919	2,154,000	1,447,073	1	1	1
Payroll, construction workers.....	2,302,496	1,798,102	1,223,540	1	1	1
Payroll, other employees.....	468,423	355,898	223,199	1	1	1
First quarter payroll, all employees.....	498,004	(NA)	(NA)	1	(NA)	(NA)
Employer costs for fringe benefits.....	564,409	(NA)	(NA)	1	(NA)	(NA)
Legally required expenditures.....	318,176	(NA)	(NA)	1	(NA)	(NA)
Voluntary expenditures.....	246,233	(NA)	(NA)	1	(NA)	(NA)
All business receipts.....	9,239,158	6,369,576	4,340,469	1	1	1
Total construction receipts.....	9,051,303	6,227,482	4,229,522	1	1	1
Receipts for work subcontracted in from others.....	1,450,907	753,011	392,082	1	3	3
Other business and land receipts.....	187,856	142,094	111,639	1	4	1
Net construction receipts.....	8,075,443	5,628,010	3,789,770	1	1	1
Value added.....	5,244,530	3,869,700	2,604,465	1	1	1
Selected payments.....	3,994,628	2,499,876	1,733,973	1	1	1
Materials, components, and supplies.....	2,756,609	1,900,404	1,296,666	1	1	1
Construction work subcontracted to others.....	975,860	599,472	439,794	1	1	1
Selected power, fuels, and lubricants.....	262,159	(NA)	(NA)	1	(NA)	(NA)
Electricity.....	16,680	(NA)	(NA)	1	(NA)	(NA)
Natural gas.....	6,198	(NA)	(NA)	2	(NA)	(NA)
Gasoline and diesel fuel.....	212,554	(NA)	(NA)	1	(NA)	(NA)
Lubricating oils and greases.....	23,021	(NA)	(NA)	1	(NA)	(NA)
Other.....	3,725	(NA)	(NA)	3	(NA)	(NA)
Rental payments for machinery, equipment, and structures.....	363,703	(NA)	(NA)	1	(NA)	(NA)
For machinery and equipment.....	340,988	260,159	161,344	1	1	1
For structures.....	22,715	(NA)	(NA)	1	(NA)	(NA)
Selected purchased services.....	368,273	(NA)	(NA)	1	(NA)	(NA)
Communication.....	35,223	(NA)	(NA)	1	(NA)	(NA)
Repairs to structures and related facilities.....	13,643	(NA)	(NA)	3	(NA)	(NA)
Repairs to machinery and equipment.....	319,407	(NA)	(NA)	1	(NA)	(NA)
Capital expenditures.....	680,191	351,136	199,122	1	2	2
New.....	528,899	284,616	155,392	1	2	1
Structures and related facilities.....	16,174	16,782	8,342	1	5	3
Machinery and equipment, including automobiles and trucks.....	512,725	267,834	147,050	1	2	1
Automobiles and trucks intended primarily for highway use.....	95,772	(NA)	(NA)	2	(NA)	(NA)
Used.....	151,292	66,520	44,126	2	4	5
Structures and related facilities.....	5,621	7,211	4,192	8	9	5
Machinery and equipment, including automobiles and trucks.....	145,671	59,309	39,934	2	4	5
Fixed assets and depreciation:						
Gross book value of depreciable assets at end of year.....	3,254,188	2,028,677	(NA)	1	2	(NA)
Accumulated depreciation at end of year.....	1,732,257	1,087,403	(NA)	1	2	(NA)
Net value of depreciable assets at end of year.....	1,521,931	941,274	(NA)	1	2	(NA)
Depreciation charges during year.....	322,774	271,562	(NA)	1	2	(NA)
Structures, additions, and related facilities:						
Gross book value of depreciable assets at end of year.....	224,817	144,252	(NA)	1	4	(NA)
Accumulated depreciation at end of year.....	78,999	41,092	(NA)	2	3	(NA)
Net value of depreciable assets at end of year.....	145,818	103,160	(NA)	2	5	(NA)
Depreciation charges during year.....	13,422	7,286	(NA)	2	4	(NA)
Machinery and equipment:						
Gross book value of depreciable assets at end of year.....	3,029,371	1,884,425	(NA)	1	2	(NA)
Accumulated depreciation at end of year.....	1,653,258	1,046,311	(NA)	1	2	(NA)
Net value of depreciable assets at end of year.....	1,376,113	838,114	(NA)	1	2	(NA)
Depreciation charges during year.....	309,352	264,276	(NA)	1	2	(NA)

¹Includes data for power, fuels, and lubricants, now shown separately.

Table 2. **Construction Receipts for Establishments With Payroll by Type of Construction: 1977 and 1972**

(Thousands of dollars. Detailed figures may not add to totals because of rounding. For meaning of abbreviations and symbols, see text)

Item	Water, sewer, pipe line, communication and power line construction contractors (1623)		Standard error of estimate (percent)	
	1977	1972	1977	1972
Construction receipts.....	9,051,303	6,227,482	1	1
Building construction.....	199,660	186,248	2	1
Nonbuilding construction.....	8,253,543	5,941,581	1	1
Highways, streets, and related facilities.....	356,298	209,648	1	2
Power and communication transmission lines, towers, and related facilities.....	1,350,414	1,255,944	2	2
Sewers, water mains, and related facilities.....	4,746,302	3,332,748	1	2
Pipe line, other than sewer or water lines.....	1,237,835	847,463	1	2
Sewage treatment and water treatment plants.....	218,823	112,270	1	1
Other nonbuilding construction.....	343,871	183,508	2	2
Construction work not specified by kind.....	598,127	99,653	2	2

Note: See text for explanation of duplication.

trative offices, warehouses, garages, or other auxiliary units which service construction establishments of the same company. Data for separate central administrative offices and auxiliaries are collected in the enterprise statistics survey, a part of the economic censuses.

This report is one in a series presenting preliminary data collected in the 1977 Census of Construction Industries. The universe for this census included all establishments classified in the construction industries (SIC's 15, 16, 17, and 6552). This report will be superseded by a more detailed final report. In addition to data for establishments with payroll presented here, the final Industry Summary report and the reports in the Geographic Area Series will present limited data for construction establishments with no payroll during 1977.

The totals of construction receipts reported by all construction establishments in each of the several industry, State, or other groupings in this census contain varying amounts of duplication, since the construction work (and the receipts) of one firm may be subcontracted out to other construction firms and, therefore, will be included in the subcontractor's receipts. To avoid this duplication, a "net construction receipts" figure has been derived by subtracting the payments made for construction work subcontracted to others from the construction receipts.

Usually, "value added" is the best measure for comparing the

relative economic importance of industries or areas. It eliminates the duplication in receipts because of subcontracting. It also eliminates from the output measure the cost of materials, which differs in relative importance among areas and industries. For this census, "value added" is equal to all business receipts less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for industries for which land receipts are significant, "value added" is equal to all business receipts less land receipts, payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels.

The symbols in the tables mean:

- Represents zero.
- D Withheld to avoid disclosing figures for individual companies; figures are included in higher level totals.
- S Withheld because estimates did not meet publication standards on the basis of either the associated standard error or a consistency review.
- Z Standard error of estimate is greater than zero but less than 1 percent.
- a Sampling error is greater than 40 percent.
- NA Not available; data were not collected.

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